

MEETING MINUTES (FINAL)

CITY OF TUCSON HABITAT CONSERVATION PLAN

Technical Advisory Committee

Wednesday, March 19, 2008, 1:00 – 4:00 p.m.

U.S. Fish & Wildlife Service, Tucson Field Office

201 North Bonita Ave, Suite 141

Tucson, AZ 85745

ATTENDEES

City of Tucson (COT) Habitat Conservation Plan (HCP) Technical Advisory Committee (TAC) members present:

Marit Alanen (U.S. Fish & Wildlife Service)

Rich Glinski (Arizona Game and Fish Department – *retired*)

Trevor Hare (Coalition for Sonoran Desert Protection)

Ries Lindley (City of Tucson – Tucson Water Department)

Guy McPherson (University of Arizona – School of Natural Resources)

Other Attendees present:

Jamie Brown (City of Tucson – Office of Conservation and Sustainable Development)

Mike Cross (Westland Resources, Inc.)

Perry Grissom (National Park Service – Saguaro National Park)

David Jacobs (Arizona Attorney General's Office)

Kathleen Kennedy (Coalition for Sonoran Desert Protection)

Leslie Liberti (City of Tucson – Office of Conservation and Sustainable Development)

Chris McDonald (University of Arizona)

1. Welcome, introduction, and TAC Charter

During introductions, guest speakers were introduced and TAC members were identified.

2. Review of TAC meeting minutes: February 20, 2008

The minutes were approved with an edit from Rich.

3. Updates

Internal City of Tucson HCP discussions

Leslie reported that City of Tucson (COT) Office of Conservation and Sustainable Development (OCSO) staff continued meeting with COT Water Department staff to discuss and refine the conservation program for the Avra Valley Habitat Conservation Plan (HCP). No changes have been made at this point, but it appears that everyone is clear on the National Environmental Policy Act (NEPA) process and issues related to HCP issuance. COT staff discussed concerns

over COT HCP commitments in the face of potential budget crises. Trevor asked if there had been any resolution to the bond covenant language. Leslie shared the steps in the internal COT process for the Avra Valley HCP. The first step involved coordinating with USFWS staff to make sure everyone is clear about HCP and NEPA requirements. The second step will involve working with Tucson Water to determine specific questions for the bond counsel.

Other updates: Trevor announced a Rosemont Mine public meeting in Green Valley the evening of March 19.

4. Discussion

A: Buffelgrass fuel loading and fire behavior study in Avra Valley

Perry Grissom, a Fire Ecologist for the National Park Service's (NPS) Saguaro National Park, recently met with Tucson Water staff to discuss a buffelgrass fuel loading and fire behavior study on COT lands in Avra Valley. Perry reported that the NPS has identified the need to quantify buffelgrass fuel loading because it is much higher than that of native vegetation. At the same time, NPS staff members want to investigate fire behavior for suppression purposes as well as to quantify the impact of buffelgrass fire on vegetation and wildlife. Given the existence of a cooperative agreement with the University of Arizona, NPS staff contacted Guy McPherson for assistance. Part of the study is very similar to one designed by University of Arizona faculty/students for the Santa Rita Experimental Range. Since the NPS did not want to risk unintentionally burning saguaros in Saguaro National Park, they spoke with Harold Maxwell of Tucson Water at a Buffelgrass Core Group meeting and identified some possible COT lands for the study.

Perry distributed the original study proposal and associated map, which needs to be updated given changes to the study. Originally, the study consisted of four or five, 50-meter square plots with continuous areas of buffelgrass. A National Park Service fire specialist recommended that instead of burning small patches within a larger field of buffelgrass, it would be better to burn the entire, 160-acre field. So, the study area has changed.

Perry said that the study investigators spoke with Courtney Conway (University of Arizona) about monitoring or surveying for burrowing owls. Now that the study area has increased, Dr. Conway has said that this would require funding. Trevor recommended that Perry speak with Dennis Abbate of Arizona Game and Fish Department about wildlife surveys. *[Action Item: OCSD will share Dennis Abbate's contact information with Perry Grissom.]*

In terms of timing the fire study, investigators are waiting for the buffelgrass to be brown enough and the paperwork to be complete, which will probably be May or June. They would like somewhat realistic conditions for fire behavior. Trevor referenced an earlier fire in Saguaro National Park and wondered if this was a buffelgrass fire ignited by lightening. Perry responded that the fire Trevor was referring to was of red brome grass infested areas, not buffelgrass. He said that buffelgrass was estimated to cover 200 acres of Saguaro National Park in the year 2000. Now, NPS staff estimates the coverage to be 2000 acres. So, while buffelgrass fires have not yet

occurred in Saguaro National Park, if one occurs, it is likely to have a greater ecological impact than other desert fires.

Marit asked what the “photopoints” and “U of A points” are on the map Perry distributed. He said that he didn’t know, since the map was not created by him, but by Tucson Water staff. Ries said he didn’t know if those were Tucson Water’s photopoints, but he said that he could find out. Leslie said that the “Seed/Soil Sample” lines correspond to work being done by Travis Bean of the University of Arizona.

Rich asked if most of the buffelgrass infested areas in Saguaro National Park were on slopes. He referred to the flat topography of the fire study site and asked if the parameters that they intend to measure would change based on slope. Perry responded that slope does affect fire behavior but its effect is similar to that of wind and can be accounted for in the fire model. For example, a five mile-an-hour wind would equate to a certain slope. He noted that modeling is never perfect and there are no other study area options that more closely resemble the conditions in Saguaro National Park. However, Perry said that the information will be better than what they have now.

Ries asked if the study would yield enough data to determine if buffelgrass is capable of starting its own firestorm. Perry said no. He said there are existing models such as FARSITE, which is a GIS-based fire modeling system at the landscape scale. Perry added that the desert is a pretty good buffer for higher elevation fires, but that if buffelgrass infests lower elevation, sonoran desert scrub-vegetated areas, this could create a major fire threat.

Guy said that, in the near future, there are likely to be patches greater than 160 acres, which is the size of the study area. Perry speculated that the largest patch within Saguaro National Park is currently about 100 acres. He said that it is thickest in the south facing slopes and, between the two Saguaro National Park districts, it is increasing fastest in the Rincon District. Trevor asked if the buffelgrass is spread along roads. Perry said that he didn’t know because it occurs in remote, inaccessible areas such as on the south side of Tanque Verde Ridge, north of X-9 Ranch. He added that the south facing slopes have large blocks of buffelgrass in steep inaccessible canyons. Thus, it is capable of long-distance travel.

Trevor asked if Don Swann was planning any wildlife studies in conjunction with the proposed fire study. Perry said no but that they anticipate such a study would be particularly important for desert tortoises. In prior work in south Texas, buffelgrass fires burned Texas tortoises.

Ries asked Chris about Lehmann lovegrass control. He said that about ten years ago, a number of prescribed fires were conducted at Buenos Aires National Wildlife Refuge (BANWR) to determine if they would permanently remove Lehmann lovegrass. Chris said that they were not effective probably because the fires took place in the spring. Recent research suggests that summer is a more appropriate season for prescribed grassland fires. Trevor asked when Lehmann lovegrass goes to seed. Chris said that it is one of the few grasses he has seen that can put out two crops of seed per year, in the spring and in the summer. Trevor asked if the information on the BANWR fires was ever published to which Chris responded “no.” Chris said that ecologists at the National Audubon Society’s Research Ranch near Elgin have had more success in Lehmann lovegrass eradication using spot treatment with herbicides, repeated over several years.

However, he said that the patches were small in comparison with the amount of the grass in BANWR. Chris added that grazing is not an effective treatment for Lehmann lovegrass.

B. Pima Pineapple Cactus: Finalize questions and list of botanists, etc.

Jamie reported that the draft document containing the cover letter, list of questions about Pima pineapple cactus (PPC) conservation, list of botanists, biologists, etc, and planning area map had been distributed to the TAC for review and input. Several recommendations from the TAC include: 1) Switching the order of the first two questions, 2) Including a PPC range map with the questions, and 3) asking respondents to indicate the basis for each of their responses (e.g. field work, scientific literature, etc.) *[Action Item: Marit will coordinate with Mima Falk (USFWS) and Sabra Schwartz (AGFD) about providing OCSD staff with PPC range GIS data].*

There was discussion about whether or not one page was long enough for an appropriate response. Given that there could be at least 40 pages of responses even at the one-page limit, everyone was comfortable with the limit. Leslie said that if there are points that need more explanation, the TAC could request a longer explanation or a panel discussion. She added that since Mima Falk (USFWS) is an HCP reviewer, she will not respond. Leslie said that the USFWS 5-year review of the PPC should be read by the TAC in lieu of USFWS direct response to the questions.

Rich asked if there is or was a PPC recovery team. Marit said that there was but it is no longer meeting. Rich asked if a Recovery Plan was produced to which Marit said no. Marit said that there are probably minutes somewhere, which document the proceedings of the meetings. Leslie asked Marit if she could ask Mima about what documentation (e.g. agendas, minutes, etc.) is available and to let OCSD know so that we can share that with the TAC. *[Action Item: USFWS staff share with OCSD staff the available PPC Recovery Team documentation (e.g. meeting minutes, etc.). OCSD staff will send to the TAC].*

Trevor asked about question 4 and whether the wording could be edited to say “. . . onsite versus offsite.” Rich thought that getting input on onsite mitigation would be a good idea, to find out whether or not transplanting PPC to medians or parks that would otherwise be destroyed would be of conservation benefit. Trevor said that this begs the question of what size of land is considered onsite versus offsite mitigation. Leslie asked what Rich meant by “on site” and he said within the area to be developed and within the study area. Leslie said that it is not just a question of inside and outside the study area but also within what context of the covered activities. She wondered if the first bullet point could be focused on conservation or management of either populations or individual plants within the context of urban development as set aside areas for lands that will be developed. She suggested indicating in question 4 where urban development is most likely to occur (i.e. within the current city limits and from I10 down and from I19 over).

For the first bullet point under question 4, it was suggested that more detail be provided. Leslie listed the options discussed, which included preserving PPC within set aside areas of cluster developments and transplanting them into Rights of Way or other landscaped areas. With regard to leaving PPC in place, Leslie said that, in highly developed areas where 90 percent or more of a site may be developed, it would be difficult for the developer to design around individuals and it

would be difficult for the City to guarantee that this would happen. So, she suggested focusing on Natural Undisturbed Open Space and indicating how much would be protected under the Native Plant Preservation Ordinance (NPPO) – 30 percent set aside as a maximum. Leslie suggested splitting the last bullet point of question 4 to read “establish mitigation banks within the planning area” and “establish mitigation banks outside of the planning area.” Trevor agreed.

Rich said that providing context on the level of potential impact in the planning area could affect the types of answers received. Leslie said that one way to frame number four is to provide two extreme options. One is to assume that all of the State Trust land would be graded and developed, with lands in the City’s jurisdiction having some protection. The other option is to present Pima County’s Conservation Lands System overlap as the strongest protection tool. Then, ask experts what options there may be for PPC conservation in between these two extremes.

Trevor suggested that the list of experts be compared with the PPC Recovery Team. Marit said that Mima reviewed the list and made additional suggestions. Guy said that it had been roughly five years since the recovery team met. *[Action Item: Marit will ask Mima if there is anyone that she left off the list of botanists, biologists, etc. who was on the PPC Recovery Team]* *[Action Item: OCSD staff contact the Arizona-Sonora Desert Museum to see if there are any employees familiar with the PPC]* *[Action Item: OCSD staff send an initial e-mail message to the eight identified experts to see if there is anyone else who is not on the list].*

In terms of next steps, Leslie said that OCSD staff will make changes and send to TAC members within a week. After the TAC reviews the questions for a week, OCSD staff will send the questions to the ecologists, biologists, etc. to determine if any question clarification is needed at the next TAC meeting. *[Action Item: OCSD staff make changes to PPC questions and send to the TAC and later to the botanists, biologists, etc.]*

C. Review Chapter 5 of latest Southlands Preliminary Draft HCP

Leslie reported on the condensed version of the Greater Southlands HCP conservation program (Chapter 5) included in the meeting packet. She noted that the four blocks are the basis of the conservation program. Originally, the blocks were based on whether or not the lands were within the Cienega Creek subwatershed and then whether or not the lands were within Pima County’s Conservation Lands System (CLS). For the revised draft, the blocks are still based on the Cienega Creek subwatershed and species habitat. The foraging habitat for the lesser long-nosed bat (LLNB) is the most extensive for that area. Therefore, Blocks 2, 3 and 4 coincide with this habitat. As a result, there is no bat roosting habitat, no LLNB foraging habitat, and no cactus ferruginous pygmy-owl breeding habitat in Block 1. About 45% of the planning area is in Block 1, 25% is in Block 2, 10% is in Block 3, and 20% is in Block 4, all of which compose slightly less than 130,000 acres.

She said that the first section of Chapter 5 focuses on the goals of the conservation program. Trevor suggested inserting the word “avoid” as part of the goals. Leslie agreed. *[Action Item: OCSD change the wording of the conservation goals to read “avoid and minimize direct, adverse impacts.”]* For Block 1, Leslie described the tables included in the meeting packet, one

of which provided areas of species habitat, including how much of a species habitat falls within the block. She provided the example that one-third of the CFPO dispersal habitat is in Block 1. The table also indicated that a little less than 10 percent of Block 1 is CFPO dispersal habitat. She said that the difference between the highlighted rows and the non-highlighted rows is the distinction between riparian associated and upland associated habitats. Marit mentioned that burrowing owl (BUOW) habitat appears to only fall within Block 1 based on field reconnaissance by Marit and Leslie. She wondered if habitat had been discussed outside of Block 1. Leslie said that she spoke with Michael Ingraldi and Shawn Lowery of the Arizona Game and Fish Department about this. They said that the habitat identified in Block 1 was marginal and they did not see any point in trying to expand beyond that.

For Block 1, Leslie said that the conservation strategies focus on protecting riparian habitat. Specific calculations of protected habitat could not be made because the current ordinances are based on floodplain delineation on a project specific basis. Therefore, it is not possible to state definitively that “x percent of habitat is going to be protected.” However, the current COT riparian habitat ordinances protect a fairly significant amount of the habitat. Strategy 2 addresses capital improvement projects while Strategy 3 deals with working with Pima County on the Lee Moore Wash Basin Management Study Rules of Development. Between those three strategies, Leslie said that she thinks that there are good opportunities to protect riparian habitat.

Leslie said that the next set of strategies addresses protecting upland species. In terms of burrowing owls, the area is not considered breeding habitat and the only documented use is stopover habitat. Based on Michael Ingraldi’s assessment, this is not good burrowing owl habitat. Therefore, Burrowing Owl Management Areas (BOMAs) may adequately address impacts to burrowing owls in protected areas along watercourses or parks. Leslie noted that this is not the same thing as breeding habitat in which artificial burrows are built and they forage nearby. Instead, the burrowing owls are stopping over at these sites.

Leslie reported that conservation Strategy 5 addresses desert tortoises and referred to the desert tortoise habitat model created by Pima County. She asked what else, beyond the watercourse protection described earlier needs to take place. She noted that slightly more than one third of the desert tortoise habitat occurs in Block 1. There was discussion as to whether or not Pima County’s habitat model had been ground-truthed. According to the notes on the model written by Julia Fonseca of Pima County, of the three desert tortoise habitat models, the AGFD model is the least extensive, the Germano model is more extensive than the AGFD model, and the Pima County model is the most extensive of all. Leslie wondered if there is a need, especially in Block 1, to look more closely at what is habitat and if desert tortoises can be found there. Leslie said that the connectivity issue has been discussed and that Cienega Creek is a corridor. In terms of preserving the migratory population, Leslie asked if it is not an issue from an overall range perspective, if it is going to be an issue from a dispersal and movement perspective. Trevor said that there is a need to conduct desert tortoise surveys. Guy recommended that OCS staff contact Cecil Schwalbe to get his recommendation on who should perform the surveys and any suggestions on the wide area search methods to be used. Guy also recommended contacting Dawn Wilson, Director of the Southwestern Research Station with these same questions. *[Action Item: OSCD staff contact Cecil Schwalbe and Dawn Wilson about desert tortoise surveyors and wide area search methods.]*

Leslie reported that Strategies 6 and 7 deal with Pima pineapple cactus (PPC), focusing on, to the extent possible, minimizing habitat loss. The COT's Native Plant Preservation Ordinance (NPPO) and the watercourse protection ordinances will offer some protection. Strategy 7 states that, with these existing ordinances, the COT's ability to protect PPC habitat is fairly limited and suggests the need to explore offsite mitigation banks, including the opportunity to discuss with USFWS staff the opportunity for doing this. Discussions on PPC this summer will shed light on this subject.

The remaining strategies for Block 1 focus on minimizing anthropogenic impact to habitat. Marit mentioned that there are now protocols for burrowing owl surveys. The second workshop on these protocols will take place April 29. Leslie said that she was hesitant to write Strategy 9 given costs associated with burrowing owl surveys and the low habitat quality in the planning area. Trevor suggested asking Linwood's opinion as a consultant. *[Action Item: OCSD staff ask Linwood his opinion as a biological consultant about Strategy 9 in terms of the cost and necessity.]* Marit said that a timing component should be incorporated if ground disturbance was happening at a certain time of year, but she said there is always the risk of disturbing any anomalous burrowing owls that happen to be present. Marit said that surveys should not be conducted too far ahead of ground disturbance in case owls move in after the survey but before the ground disturbance. Trevor asked if desert tortoise and burrowing owls surveys could be done at the same time, because with both, the surveyor is looking for burrows. *[Action Item: OCSD staff ask Linwood and/or a desert tortoise surveyor about the feasibility of performing desert tortoise and burrowing owl surveys at the same time.]*

Trevor mentioned Strategy 8, reducing anthropogenic impacts to protected habitat, and prohibiting the use of off highway vehicles (OHVs) in washes. He said that there is City code that prohibits this. Leslie responded that this does not apply to all washes, only the signed washes. She said that her recollection of the existing ordinance is that it applies to washes within a certain distance of development to reduce noise disturbance and is not based on habitat protection. Trevor said that he thinks that a law can be written to include all washes within the COT limits unless posted otherwise, without the need for signage along every wash. *[Action Item: OCSD staff ask the COT Attorney's Office about the off-road vehicle ordinance(s) and whether or not all washes need to be signed for the ordinance to be enforceable].*

Leslie said that the last strategy addresses the need for bat surveys as part of COT bridge maintenance activities. Questions were asked about how much information the COT has on bridges such as the number within the COT, those with bat habitat, etc. Trevor wondered if the Campbell Road Bridge over the Rillito is a COT bridge since bats have been addressed as work on the bridge has been done. Trevor also mentioned that Sandy Wolf studied bridges in the region as bat habitat. *[Action Item: OCSD investigate how much information is available about bridges as they relate to bat habitat]*. Marit wondered if the COT would be interested in making new bridges bat friendly or bat exclusive. Leslie said that the design cost could be a factor if it significantly added to the cost of bridge construction. She said that if it doesn't add to the design cost, then it is more a matter of educating transportation planners and the consultants supporting them. The key would be to provide specifications so that engineers know exactly how to do this.

Rich asked about Strategy 8 saying that the only anthropogenic impact mentioned in the Chapter dealt with off highway vehicles (OHVs) but that there are other human activities in the watercourses that could degrade the habitat. Leslie said that if the TAC knows of other anthropogenic activities that degrade the habitat, to add those while commenting on the latest draft.

For Block 2, Leslie said that these areas have significant upland habitat and correspond to the foraging habitat for the lesser long-nosed bat, contains cactus ferruginous pygmy-owl breeding habitat and roosting habitat for both bats (lesser long-nosed bat and pale Townshend's big-eared bat). She said that watercourse protection ordinances provided the starting point in terms of strategies. Strategy 13 is still a question mark, but there is some COT Council Member support for recognition of Pima County's Conservation Lands System.

She referenced the chart in the packet that provides areas of upland species habitat by block and the amount of habitat protected under the CLS categories for Blocks 2, 3, and 4. For Block 1, Leslie said that the numbers are artificially low because they do not account for riparian protection in Block 1. Except for PPC and desert tortoise, Leslie noted that habitat protection levels for other species are pretty high. For the desert tortoise, habitat protection would be less than 50 percent but that also depends on if this habitat model works for this area.

In terms of TAC member comments, Trevor said that he thinks the overall concept and protection levels look great. Rich said that he is comfortable with the burrowing owl not being included in Block 1 because the habitat is marginal. Leslie said that the burrowing owl management areas (BOMAs) would be fairly extensive. She said that there is no protocol for establishing a BOMA in stopover habitat, so she wondered if the best strategy would involve locating several sites for BOMAs and then having a group, such as Wild at Heart, install artificial burrows. That would be the extent of burrowing owl habitat protection in the Greater Southlands HCP Planning Area. Rich said that he does not have a concern about what the BOMA will look like initially given the need to apply adaptive management.

Rich asked David what the Arizona State Land Department (ASLD) thinks of Pima County's Conservation Lands System (CLS) as it relates to their overlay of the valuation. Trevor noted that the CLS was applied with the Arroyo Grande ASLD project. David said that the CLS was accepted at Arroyo Grande, but that decisions are based on an area-by-area basis. He said he thinks the Arizona State Land Department has less of a problem if a jurisdiction decides to adopt the CLS as opposed to Pima County arguing that the jurisdictions should adopt the CLS.

Marit referred to Strategy 13 and the statement: "Landowners will be permitted to demonstrate that the actual condition of their property does not provide suitable habitat for any covered species." Leslie said that the language was included because there have been a number of discussions with consultants and developers who say that the land was mapped as part of the CLS but the property may have been completely graded or damaged. Marit asked if this language could introduce the risk of habitat removal. Trevor agreed and said that Pima County staff does this on a case-by-case basis. Leslie said that she understands the concern about recently graded lands, and the need to specify that exceptions could be made for incorrectly mapped habitat but not recently graded lands. *[Action Item: OCSD staff re-word language in Strategy 13 about*

permitting landowners to demonstrate that the actual conditions of the property do not provide suitable habitat. The language should specify incorrectly mapped habitat versus recently graded lands.]

Leslie said that with the COT's Hillside Development Zone ordinance, if it applies in addition to the CLS, more areas with slopes and ridges likely to have bat habitat would be protected. She added that the foraging and roosting habitat types overlap for the lesser long-nosed bat.

Leslie mentioned Conservation Strategy 26, which would require surveys for pygmy-owls prior to ground clearance activities in areas where pygmy-owl have been documented. Trevor said that the USFWS delineated CFPO survey areas when the species was listed. Leslie said that the Strategy was worded such that surveys are only required if deemed necessary in consultation with the USFWS. This way, if the CFPO is deemed extinct in the future, then there is not an unnecessary requirement.

For the language about environmental sensitive roadway design, Trevor suggested that it not focus just on minimizing impacts of road construction on habitat but also wildlife mortality, movement corridors, and dispersal corridors. Leslie said that it is important to remember that engineers need specific details. Rich asked if environmentally sensitive road design guidelines have been formulated. Leslie responded that Pima County has these. Trevor said that these guidelines are evolving because they were based on needs of CFPO, but negatively impact other species. He said that Michael Ingraldi is studying some of these structures. Leslie said that staff will know more over the next three to five years because Regional Transportation Authority funded studies on wildlife crossings are just beginning. She said that the big challenge is the species-specific nature of wildlife friendly roadway design.

Leslie reported that the conservation measures for Blocks 3 and 4 are identical to those of Block 2. Leslie noted that lesser long-nosed bat foraging habitat is almost 98% of Block 3, of which 72% would be protected as part of the conservation program and the application of the CLS. Leslie asked TAC members about the significance of the landscape for each of those three blocks. Trevor responded that water movement, runoff from roads, and water quality in Cienega Creek are unique to Block 3. He wondered how this could be linked to anthropogenic effects. Trevor said that the COT has the ability to control "wildcat" development in the area. He added that local residents are concerned about septic tank leakage into Cienega Creek. *[Action Item: OCSD staff get information on water quality monitoring efforts for Cienega Creek]*. Leslie said that if the lands are within the COT limits, then ideally, they will be master planned, eliminating the septic tank leakage concern. She added that if land is not within the COT limits, then it is not covered by the COT's HCP incidental take permit.

Trevor mentioned the need to reduce pollutant runoff from roadways. There was discussion about whether or not this is covered by the COT's National Pollution Discharge Elimination System (NPDES) permit. Leslie said that the biggest problem facing the COT in terms of water quality is wash deterioration due to clearwater scour. She said that this issue was brought up at the last Stormwater Advisory Committee meeting. It was recommended that Pima County address the issue of clearwater scour as part of the Lee Moore Wash Basin Management Study. *[Action Item: OCSD staff look at the COT's NPDES permit.]*

Trevor asked if the COT would be willing to help pay for extending reclaimed water lines to Rancho del Lago to give the COT HCP conservation credits from the USFWS. Leslie said that money is a limiting factor. Ries said that the COT is always interested in selling more reclaimed water rights. However, the users pay for extending reclaimed lines. He said that if there is a group of customers in a close geographic area, Tucson Water may pay to install the mains. Marit wondered if reclaimed water was cheaper than potable, and, if so, if it would pay for itself if the COT installed the water lines to new customers. Ries said that reclaimed water is subsidized so that it is priced lower than potable to encourage its use. He said that Rancho del Lago probably has its own water rights, in which case, they only pay for the electricity to pump the water. That is much cheaper than potable or reclaimed water.

Trevor asked if there is a Tucson Water infrastructure study in the Greater Southlands similar to the Pima Association of Governments Southeast Area Arterial Study. Ries said that the lands within the COT limits are included in Tucson Water's 50-year plan. Trevor asked if the 50-year plan addresses delivering reclaimed water to developing areas within the COT. Ries said that the plan does and that there is a group of customers economically suited for the use of reclaimed water, such as industries, schools, and golf courses. Trevor asked about Civano's reclaimed water supply and where it comes from. Ries said that it is part of the Tucson Water's reclaimed system.

Leslie asked that comments to the text of the chapter not just focus on edits, but also the concept as a whole, such as if there are any gaps. She said that Chapter 5 will be discussed further at the next meeting.

D. Desert tortoise surveys (covered above)

5. Topics for upcoming meetings

- April: Continue discussion of the Greater Southlands HCP conservation program.
- May: Start PPC discussion, if possible.
- Unscheduled: Rich will keep OCSD staff informed about Dennis Kubly's attendance at a future TAC meeting to discuss adaptive management. Leslie mentioned that Steve Anderson of Pima County is interested in working with the COT on trails planning.

TAC meetings were scheduled for July 16, August 20, and September 17, the third Wednesday of those months. All meetings will take place from 1:00 to 4:00 p.m. at the U.S. Fish and Wildlife Service Conference Room.

6. Call to the audience

No comments

7. Adjournment

Leslie adjourned the meeting at 3:30 p.m.

Summary of Action Items:

- OCSD will share Dennis Abbate's contact information with Perry Grissom;
- Marit will coordinate with Mima Falk (USFWS) and Sabra Schwartz (AGFD) about providing OCSD staff with PPC range GIS data;
- USFWS staff share with OCSD staff the available PPC Recovery Team documentation (e.g. meeting minutes, etc.). OCSD staff will send to the TAC;
- Marit will ask Mima if there is anyone that she left off the list of botanists, biologists, etc. who was on the PPC Recovery Team;
- OCSD staff contact the Arizona-Sonora Desert Museum to see if there are any employees familiar with the PPC;
- OCSD staff send an initial e-mail message to the eight identified experts to see if there is anyone else who is not on the list;
- OCSD staff make changes to PPC questions and send to the TAC and then the list of botanists, biologists, etc.;
- OCSD change the wording of the conservation goals to read "avoid and minimize direct, adverse impacts";
- OCSD staff contact Cecil Schwalbe and Dawn Wilson about desert tortoise surveyors and wide area search methods;
- OCSD staff ask Linwood his opinion as a biological consultant about Strategy 9 in terms of the cost and necessity;
- OCSD staff ask Linwood and/or a desert tortoise surveyor about the feasibility of performing desert tortoise and burrowing owl surveys at the same time;
- OCSD staff ask the COT Attorney's Office about the off-road vehicle ordinance(s) and whether or not all washes need to be signed for the ordinance to be enforceable;
- OCSD investigate how much information is available about bridges as they relate to bat habitat;
- OCSD staff re-word language in Strategy 13 about permitting landowners to demonstrate that the actual conditions of the property do not provide suitable habitat. The language should specify incorrectly mapped habitat versus recently graded lands;
- OCSD staff get information on water quality monitoring efforts for Cienega Creek, and;
- OCSD staff look at the COT's NPDES permit.